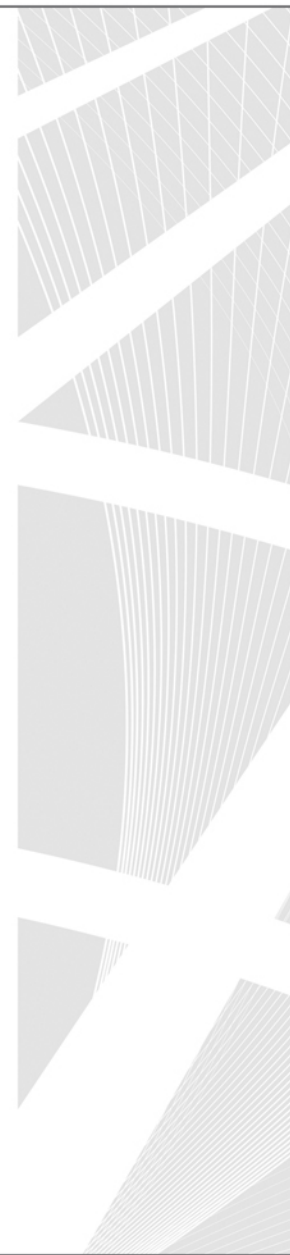

*Workshop of the G20 end use data and energy efficiency
metrics initiative*

Weekly Electricity Consumption Index for the monitoring of the main Industrial sectors in Italy

Authors the statisticians team of TERNA: Simona Vazio, Barbara Santini, Alessandro Venturi

Illustrated by Giovanni Perrella (Ministry of economic development – Energy Directorate)



Weekly Index on electricity consumption of industry sector

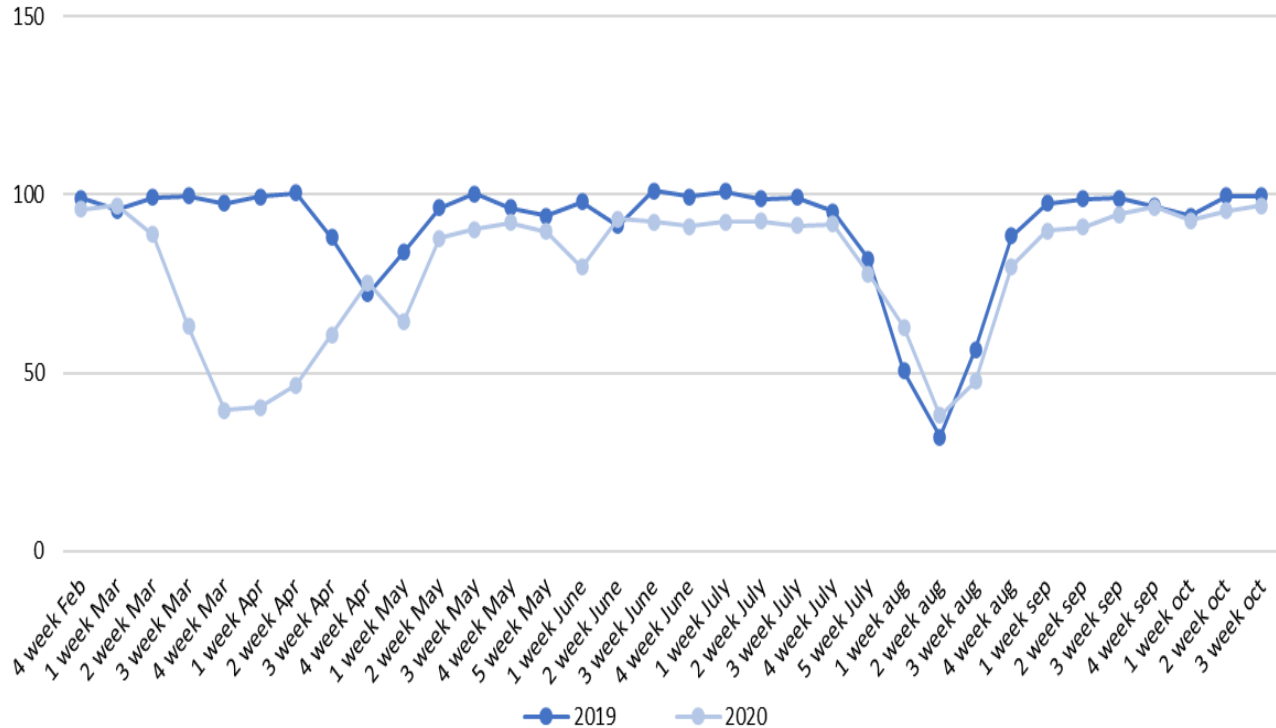
The weekly index was constructed starting from the measurements of the weekly consumptions **of approximately 530 energy intensive customers** (directly connected to high voltage and of which Terna is responsible for the measurement) **and that represent around 25% of total electricity used in industry sector.**


These customers were reclassified on the basis of the Ateco2007 Codes and aggregated by product class. Therefore, six statistically significant aggregates were built (Buildings materials - Steelwork - Chemistry - Mechanics - Transport - Non-ferrous metals).

For the purpose of analyzing the impacts of the current crisis, the dimensionless **index was constructed using 100 as the basis for the first week of February 2020.** The graphical representation therefore allows you to compare the performance of the individual weeks of 2020 with both the previous weeks and the similar weeks of the year 2019. **The variations highlighted are referred to the last week of the figure (vs the previous week or vs the same week of the previous year)**

Construction of the Industrial Consumption Index

WEEKLY / YEAR COMPARISON of the consumption of 530 energy-intensive customers



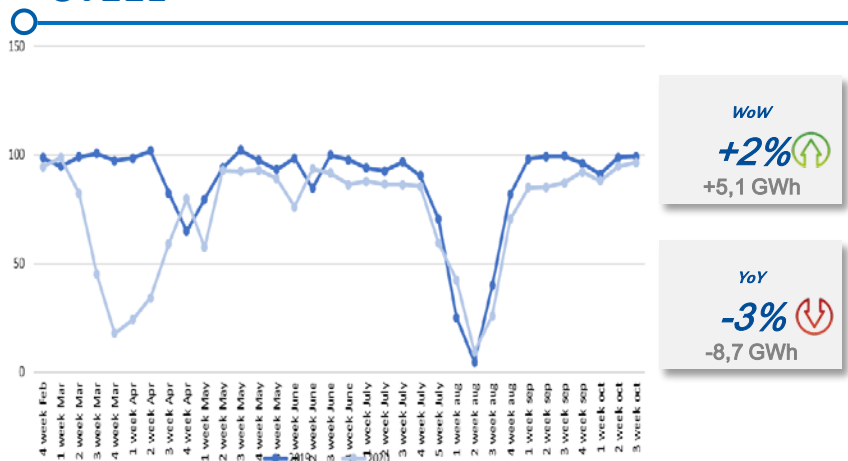
WoW
+1% 
 +9,1 GWh

YoY
-3% 
 -16,8 GWh

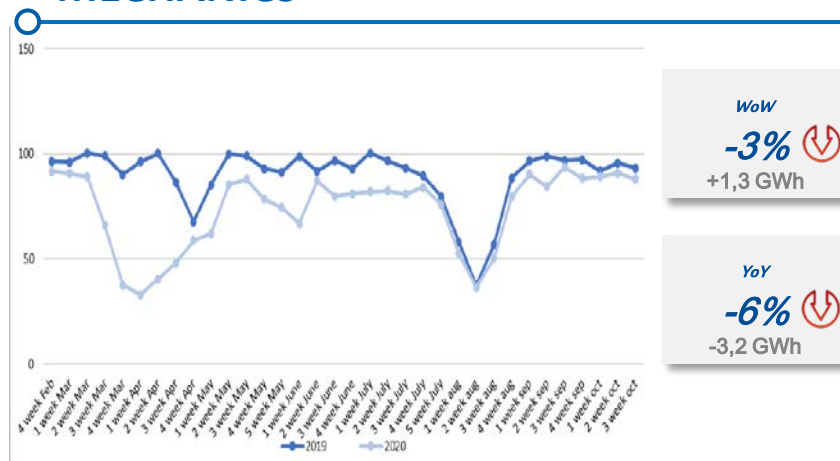
The trend analysis was developed by taking into consideration the weekly consumption of the year 2020, comparing them with the consumption of the same weeks of 2019.

WEEKLY COMPARISON

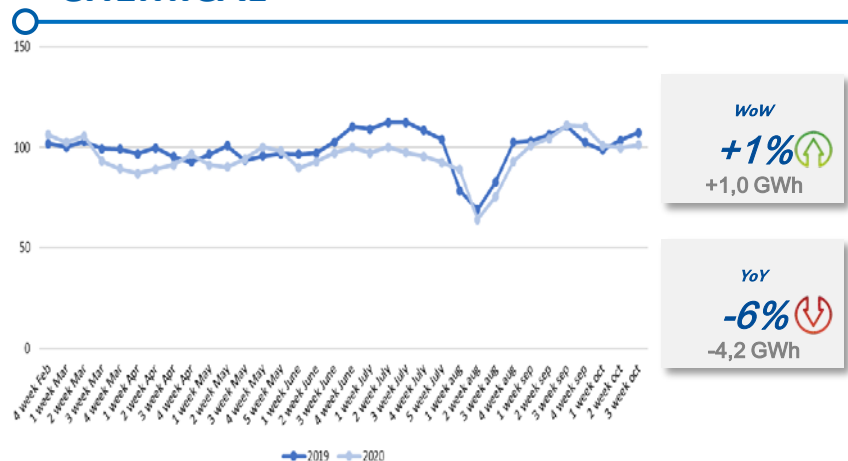
STEEL



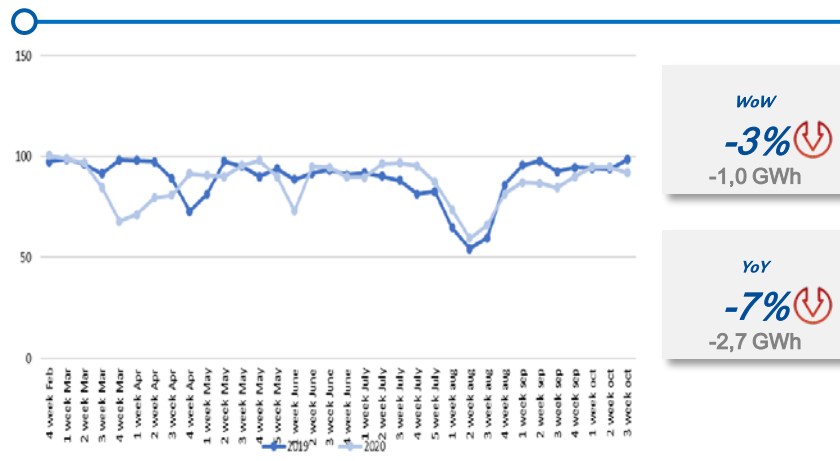
MECHANICS



CHEMICAL

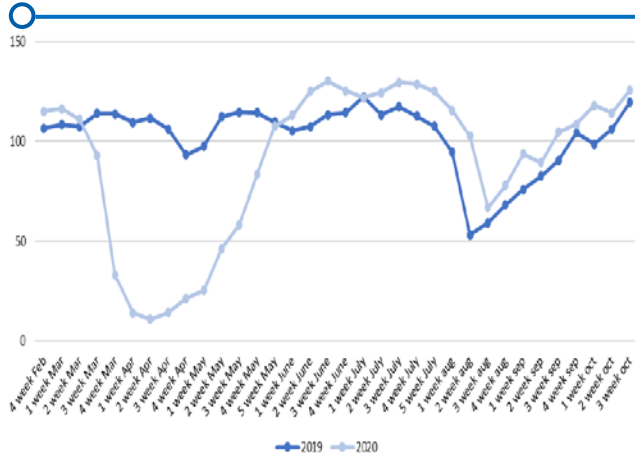


NON-FERROUS METALS



WEEKLY COMPARISON

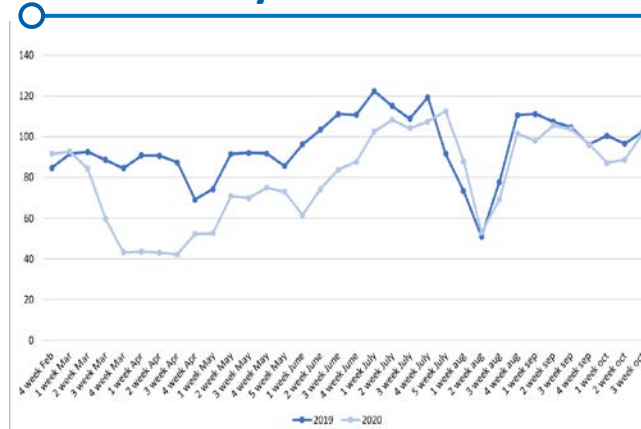
BUILDING MATERIALS



WoW
+10%
 +3,7 GWh

YoY
+5%
 +1,9 GWh

Machinery of TRANSPORT



WoW
+14%
 +0,3 GWh

YoY
-1%
 -1,8 GWh

Conclusion

The weekly index was very well appreciated from the politicians and technicians of the Ministries that have in charge the monitoring of the economic activities;

In particular in time of Pandemic (COVID-19) it could be an adjunctive instrument for the monitoring of the situation in real time (just one week of distance from the reality);

It is very useful for the discrimination of the financial help to the sectors that in real are suffering in the crisis loss of production.

We are looking for to increase the number of industries involved.

It seems very simple and easy to share with the “non expert” public even, if until now, it was not released at the general population but only at selected group of analysts, in particular for the prevision of the electricity request on the grid.